User’s Manual

SPPC70-5B-C1G
SPPC70-5B-C15G
SPOS70-5B-C1G
SPOS70-5B-C15G

Copyrights

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Liability Disclaimer

In no event will the manufacturer be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use the product or documentation, even if advised of the possibility of such damages.

Regulatory Information

FCC Notices

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Increase the separation between the equipment and the receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio or television technician for help.

This device complies with Part 15 (A) of the FCC Rules. Operation is subject to the following two conditions:

1) this device may not cause harmful interference and

2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS DEVICE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE DEVICE.

CE Notice

This device complies with **EMC Directive 2004/108/EC** issued by the Commission of the European Community.

WEEE Notice

The **WEEE** mark applies only to countries within the European Union (EU) and Norway.
This appliance is labeled in accordance with **European Directive 2002/96/EC** concerning **waste electrical and electronic equipment** (**WEEE**). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.

Contents

Copyrights i
Liability Disclaimer i
Regulatory Information i
FCC Notices i
CE Notice i
WEEE Notice ii
Contents iii
Introduction 1
Unpacking the Box 2
Hardware Setup 3
3.1. Quick Tour 3
Front View 3
Back Panel I/O 4
3.2. Battery Pack Installation 4
3.3. Peripherals Installation 7
Power Adapter 7
USB Mouse, USB Keyboard and USB ODD 7
LAN Cable 8
Cash Drawer 8
PS2/COM 8
MSR Installation 9
3.4. Wall mount Kit installation 11
3.4. Turn on the Device 11
Driver and Utility Installation 12
4.1. Before the installation 12
4.2. Chipset Software Installation 12
4.3. VGA Driver Installation 14
4.4. LAN Driver Installation 16
4.5. Audio Driver Installation 17
4.6. Wireless LAN Driver Installation 18
Power Management 20
5.1. Enter Power Option Properties Sheet 20
5.2. How to Set Power Options 21
Power Schemes 21
Alarms 22
Power Meter 24
Advanced 25
Hibernate 25

TouchKit Utility Quick Guide 26
6.1. Launch Touchscreen V7.3.COM 26
6.2. User interface 26
6.3. Serial Port Information 27
6.4. Virtual Button Settings 27
Virtual Button Option 27
Right Button Function 28
Right Button Automatic Mode 29
6.5. Feedback Sound 29
Feedback Sound Option 29
Tone 30
Duration 30
6.6. Screen Calibration 30
4 points, mode 1 31
4 points, mode 2 31
How to Use Event Selector 32
I/O Definition 33
7.1. Power Connector 33
7.2. Serial Port 33
7.3. PS2/COM 34
7.4. Cash Drawer 34
Specification 36

1.

Introduction

Features:

- Intel® low power consumption and high performance technology
- Durable ultra-slim & robust die-casting aluminum chassis
- Smart Battery Backup - supply voltage more than one hour without any external power supply
- 4 x USB 2.0,1 x RS-485/422/232, 3 x RS-232, Gigabit Ethernet port (RJ-45), cash drawer port (RJ-11) and 1 X parallel port equipped
- Video Module (Optional)
- Wireless LAN supported
- Microsoft Windows series operation system (Windows XP Home Edition, Windows XP Professional Edition and WEPOS) and open-source Linux operation system supported.

2.

Unpacking the Box

Verify that the box contains the following items.

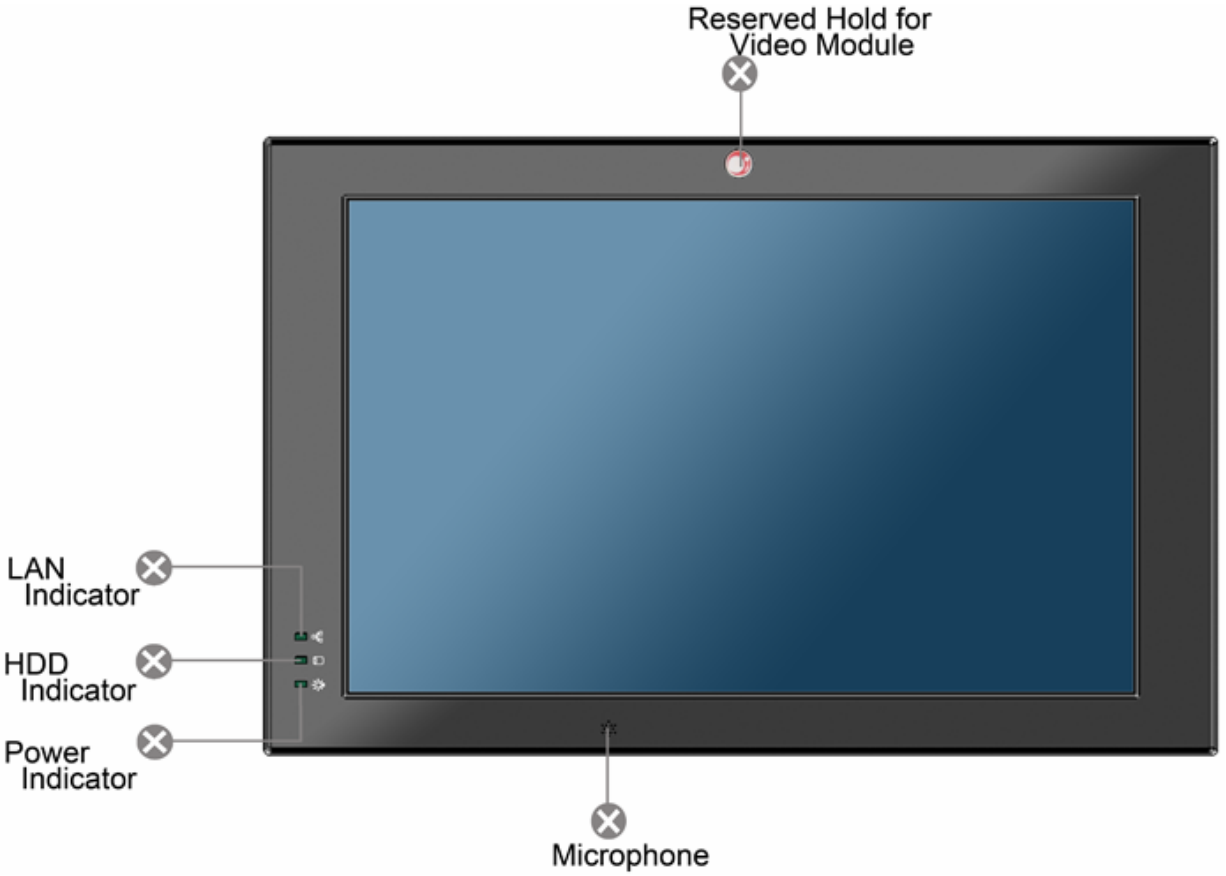
1	Device X 1
2	Power Adaptor X 1
3	Power Cord X 1
4	Driver and utility CD X 1
5	Wall mount Kit x 1

3.

Hardware Setup

3.1. Quick Tour

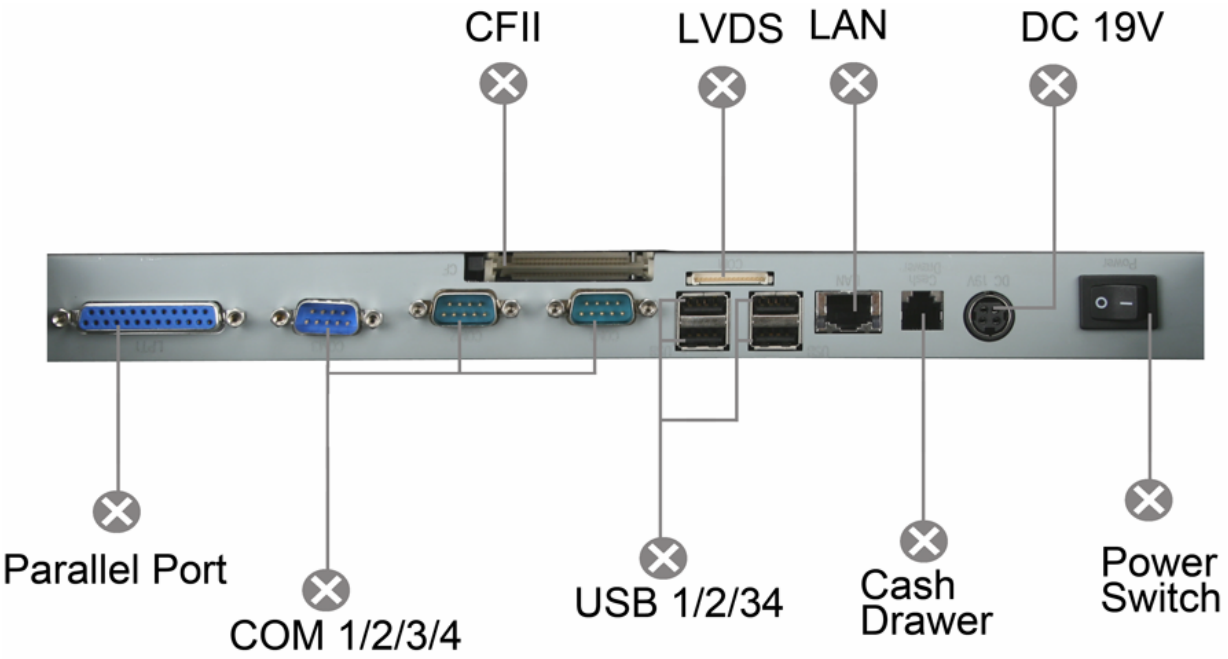
Front View



LED Indicator

	The **Power** indicator will glow green when power is on.
	The **HDD** indicator will blink green when the HDD is accessed.
	The **LAN** indicator will blink green when transferring data though the LAN.

Back Panel I/O



Note: For details of I/O ports on the back panel, please refer to Chapter 7 – I/O Definition.

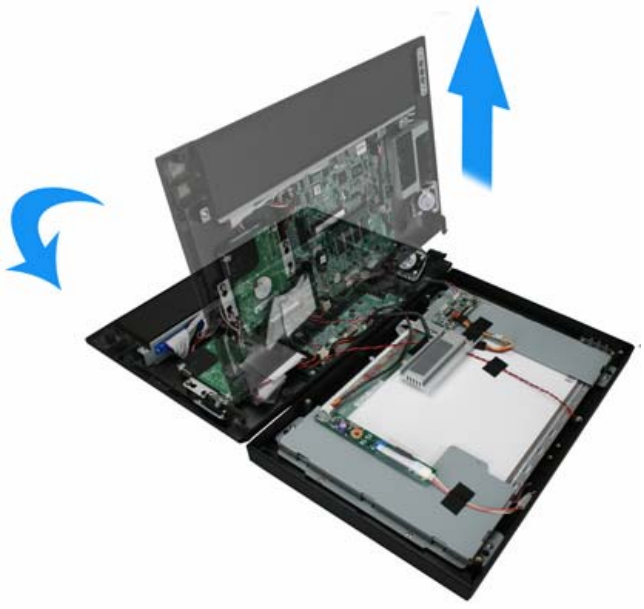
3.2. Battery Pack Installation

Before power-on the device, please install the battery (optional accessory) to the mainboard:

1. Un-tighten four screws on the back panel anticlockwise.

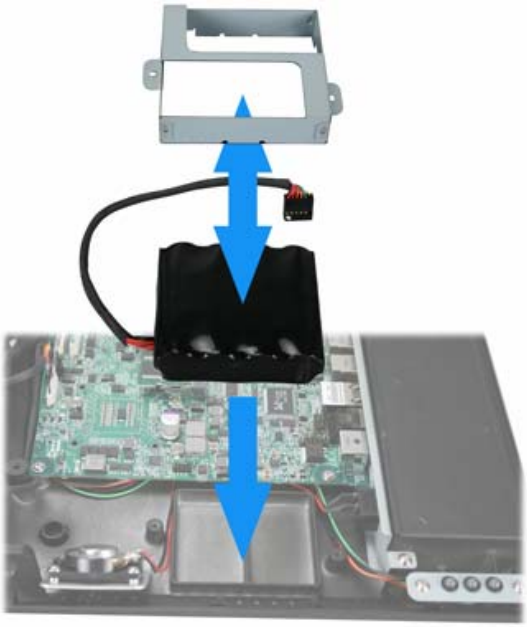
2. Open the back panel.

3. Separate the back panel from the front panel by lifting up and lay it down carefully.



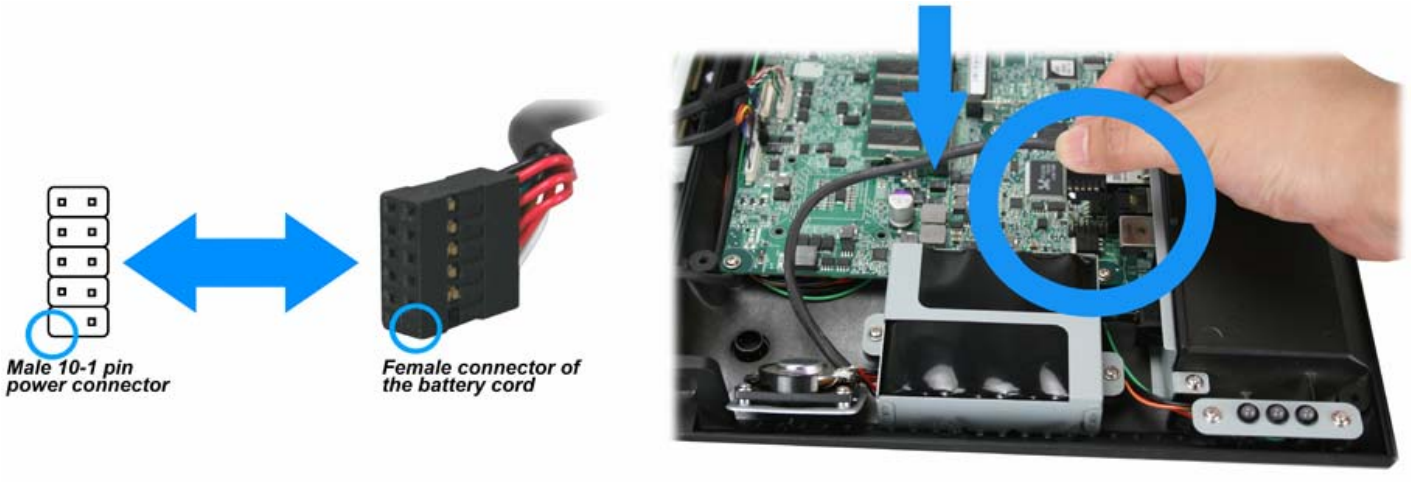
4. Un-tighten the two screws fixing the battery bracket.

5. Insert the battery into the battery bracket as shown below.

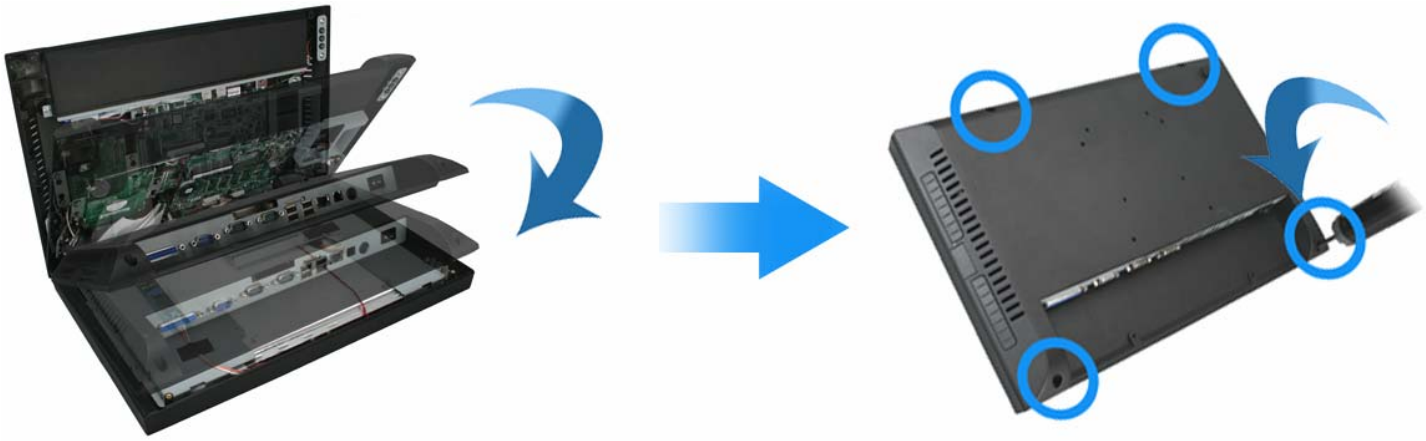


6. Tighten the two screws to fix the battery bracket.

7. Plug the power cable to the 9-pin power connector in the correct orient.



8. Close the back panel and tighten the four screws on the back panel.



3.3. Peripherals Installation

Power Adapter

Connect the 4-pin output jack of the adapter to the **DC 19V** jack on the back panel of the device.

USB Mouse, USB Keyboard and USB ODD

Connect your USB Mouse, USB Keyboard and USB ODD to **USB** ports on the back panel of the device.

LAN Cable

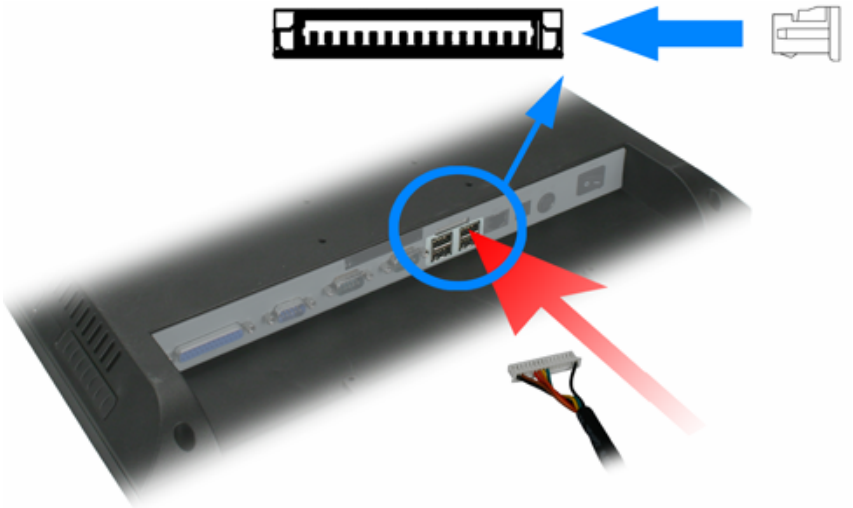
Connect one end of RJ-45 LAN cable to the **LAN** port on the back panel of the device, another end to your internet device.

Cash Drawer

Connect one end of RJ-11 cable to the **Cash Drawer** port on the back panel of the device, another end to your cash drawer.

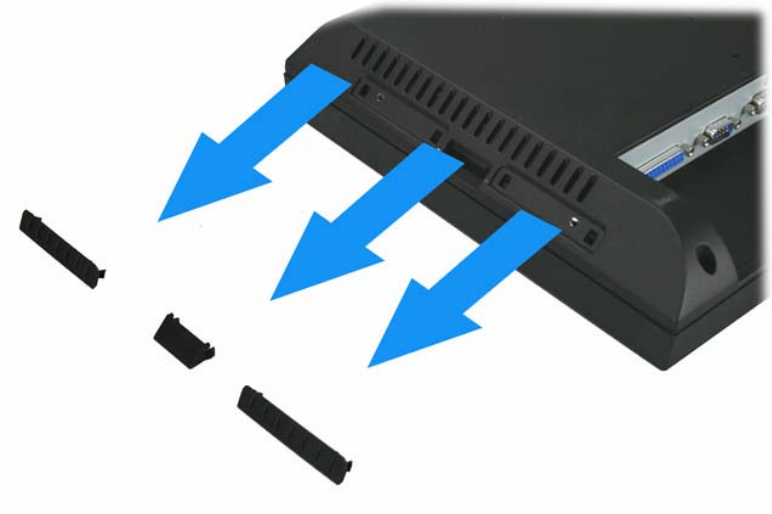
PS2/COM

1. Connect the female connector of the external device to the **PS2/COM** port on the back panel of the device in the correct orient.



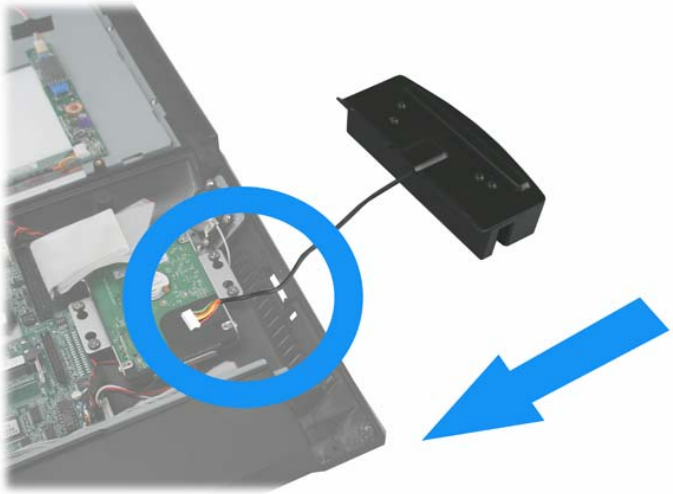
MSR Installation

1. Remove the three plastic covers from the device as shown below.



2. Open the device as steps describe in the section. 3.2.

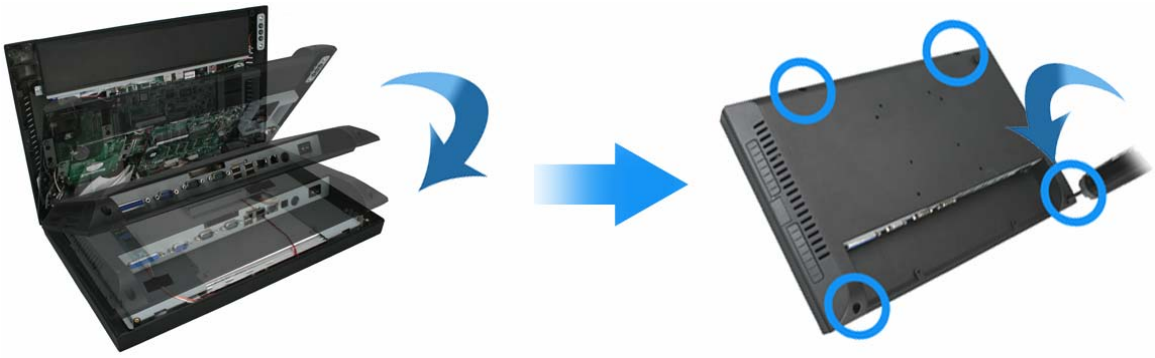
3. Pass the MSR cable through the hole of the chassis as shown below.



4. Plug the MSR to the connector in the correct orient.

5. Tighten two screws of the MSR assembly as shown below.

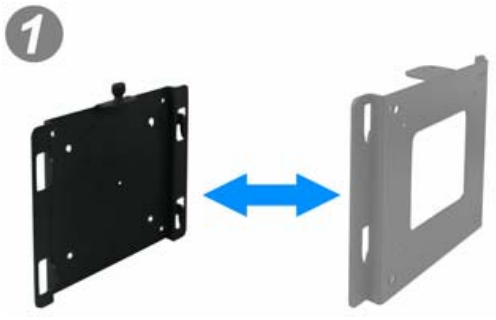
6. Close the back panel and tighten the four screws on the back panel.



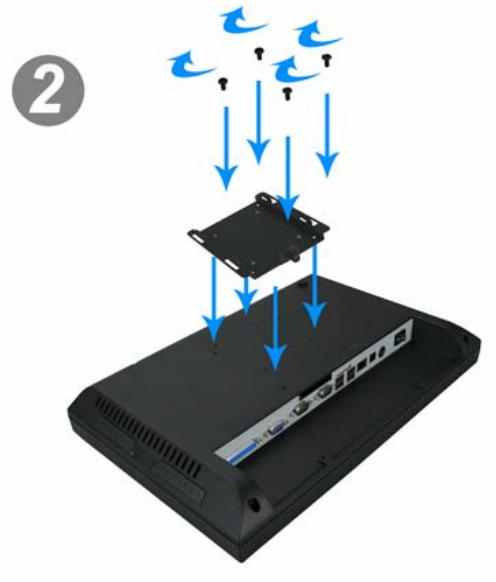
7. Finished.

3.4. Wall mount Kit installation

1. Separate the wall mount kit.



2. Align the screw holes of the wall mount kit to the holes of the device and tighten the four screws.



3.4. Turn on the Device

1. Make sure all peripherals are connected properly.

2. Press and hold the power switch until the power indicator on the front panel glow green.

4.

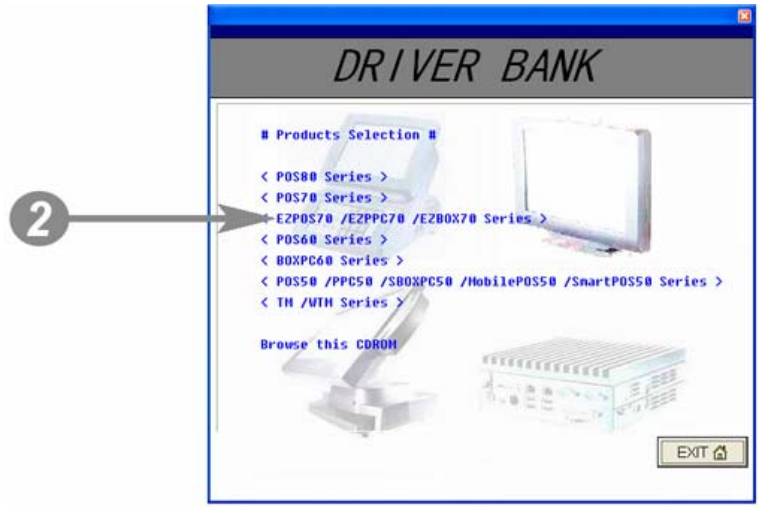
Driver and Utility Installation

4.1. Before the installation

All installation procedures described below are based on Microsoft Windows XP.

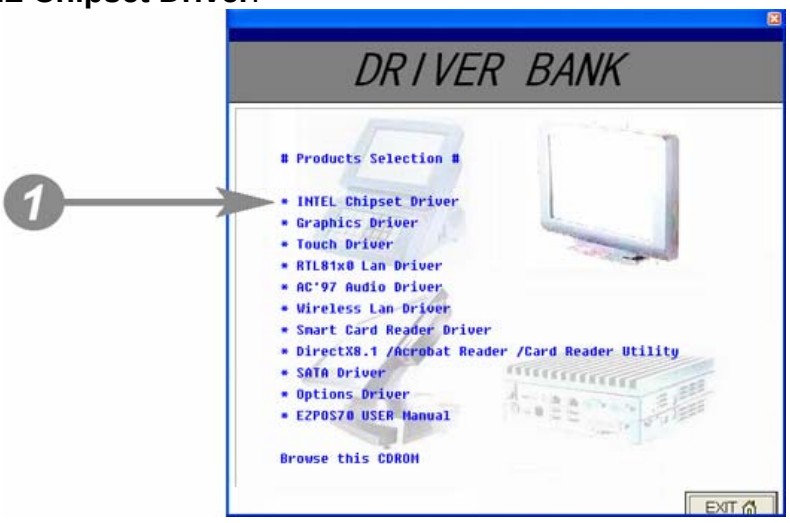
1. Connect an external USB CDROM drive to the USB port and insert the driver CD and turn on the device. The program autoruns and displays the ***DRIVER BANK*** screen.

2. Click SPPC70 series.

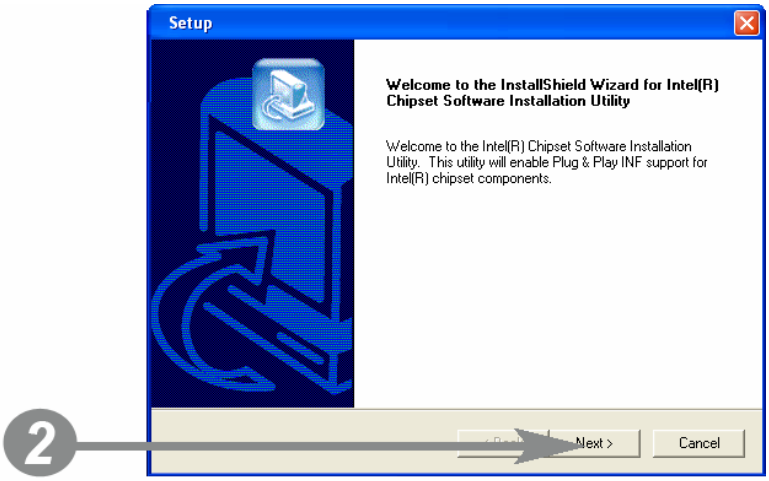


4.2. Chipset Software Installation

1. Click **INTEL Chipset Driver**.

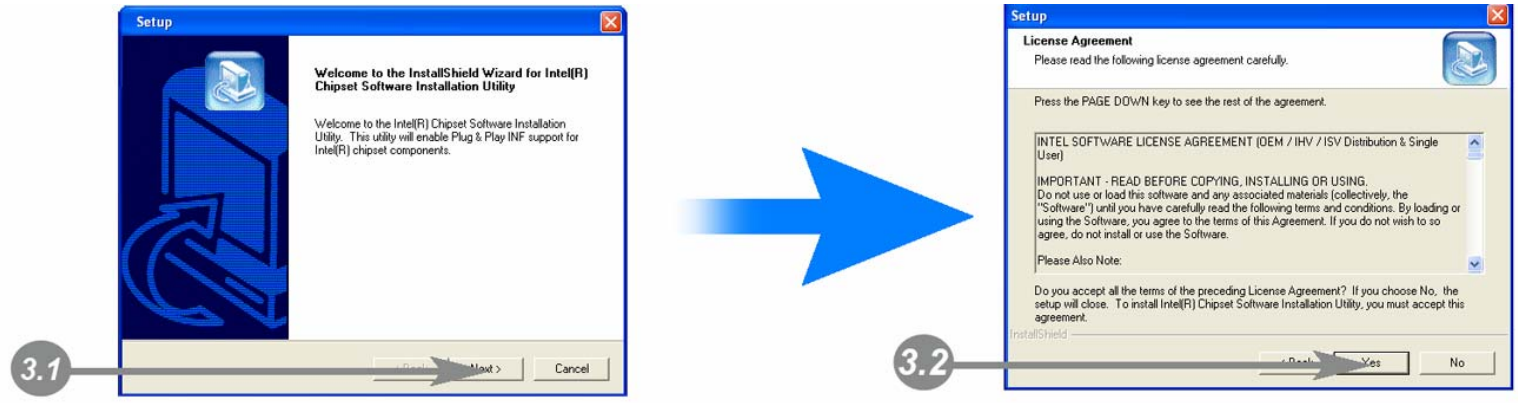


2. Click **Next**.

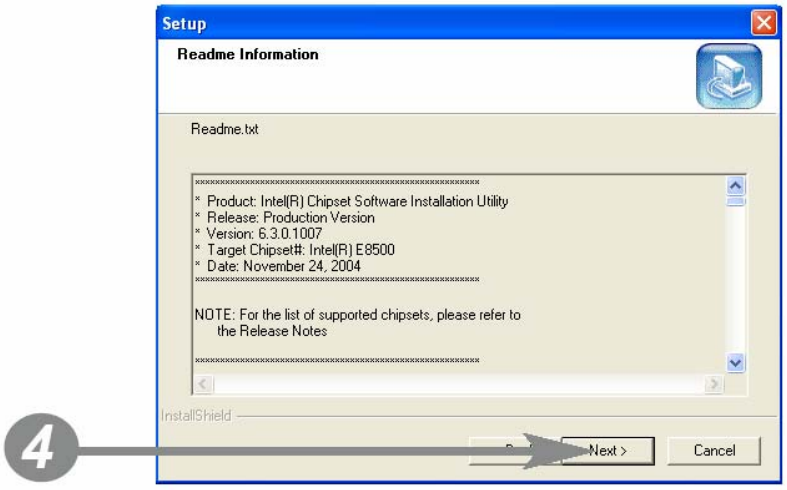

Setup
Welcome to the InstallShield Wizard for Intel(R) Chipset Software Installation Utility
Welcome to the Intel(R) Chipset Software Installation Utility. This utility will enable Plug & Play INF support for Intel(R) chipset components.
Next >
Cancel
2

3.1. Click **Next**.

3.2. Read the License Agreement carefully and click **Yes**.

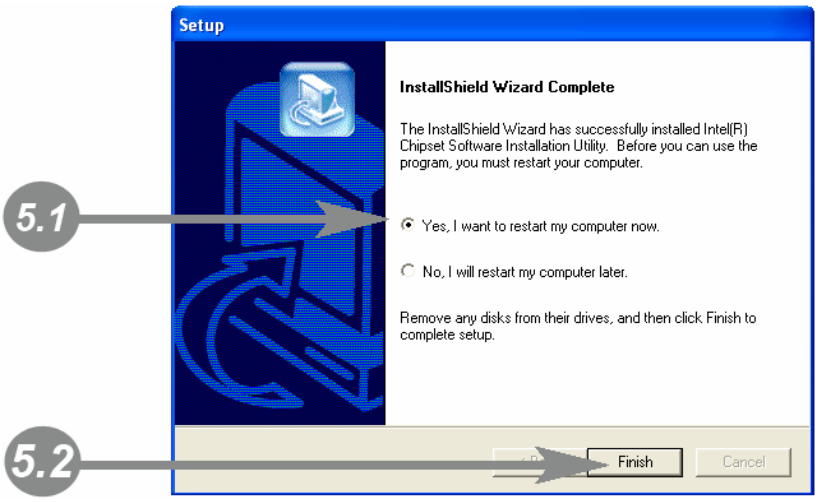

Setup
Welcome to the InstallShield Wizard for Intel(R) Chipset Software Installation Utility
Welcome to the Intel(R) Chipset Software Installation Utility. This utility will enable Plug & Play INF support for Intel(R) chipset components.
Next >
Cancel
3.1
Setup
License Agreement
Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
INTEL SOFTWARE LICENSE AGREEMENT (OEM / IHV / ISV Distribution & Single User)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement. If you do not wish to so agree, do not install or use the Software.
Please Also Note:
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install Intel(R) Chipset Software Installation Utility, you must accept this agreement.
InstallShield
Yes
No
3.2

4. Click **Next**.



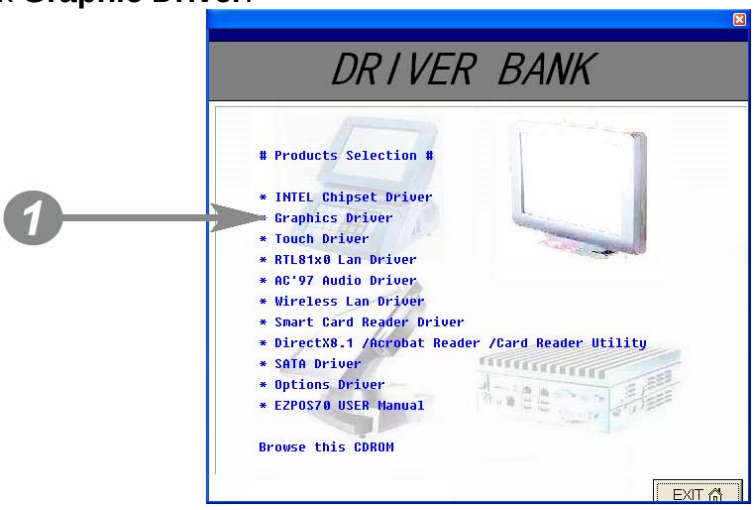
5.1. Select restart your computer right now or later.

5.2. Click **Finish**.

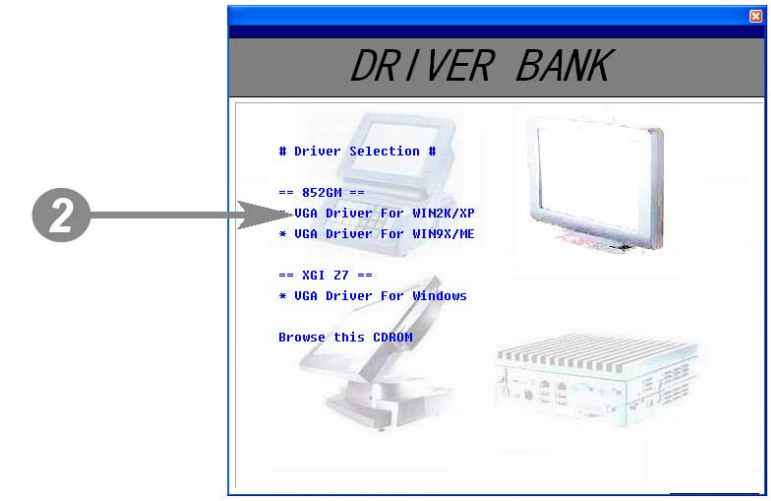

Setup
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed Intel(R) Chipset Software Installation Utility. Before you can use the program, you must restart your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
Finish
Cancel
5.1
5.2

4.3. VGA Driver Installation

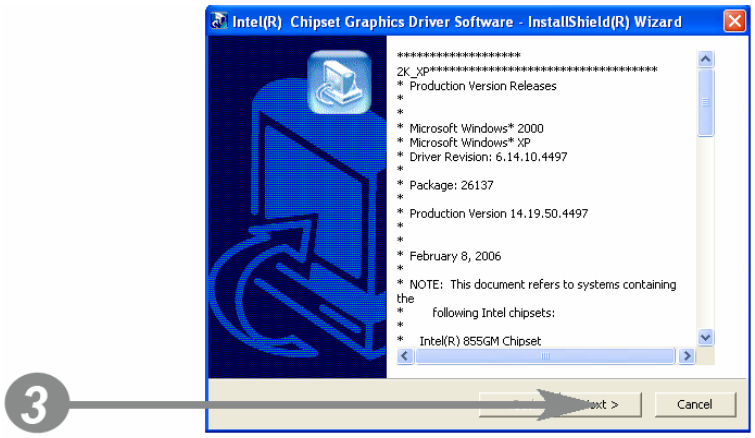
1. Click **Graphic Driver**.



2. Click **VGA Driver for WIN2K/XP**.

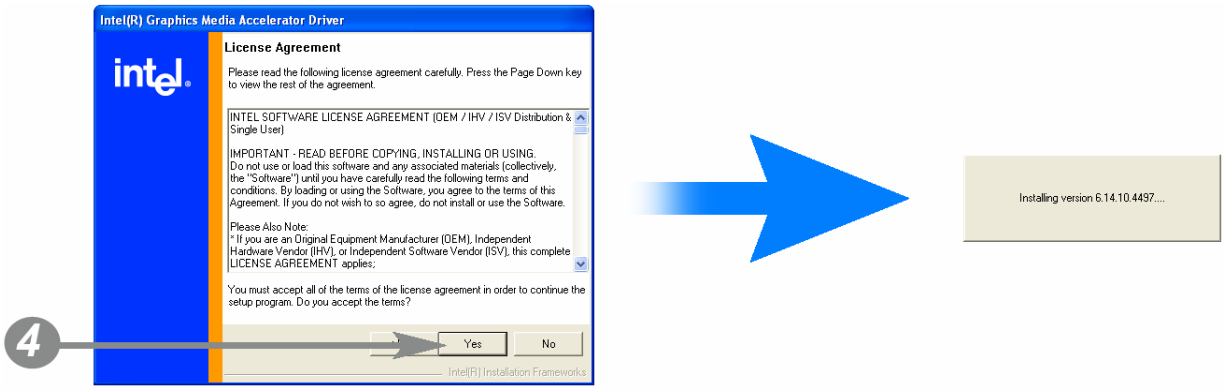


3. Click **Next**.


Intel(R) Chipset Graphics Driver Software - InstallShield(R) Wizard
2K_XP
* Production Version Releases
* Microsoft Windows* 2000
* Microsoft Windows* XP
* Driver Revision: 6.14.10.4497
* Package: 26137
* Production Version 14.19.50.4497
* February 8, 2006
* NOTE: This document refers to systems containing the following Intel chipsets:
* Intel(R) 855GM Chipset
Cancel
3

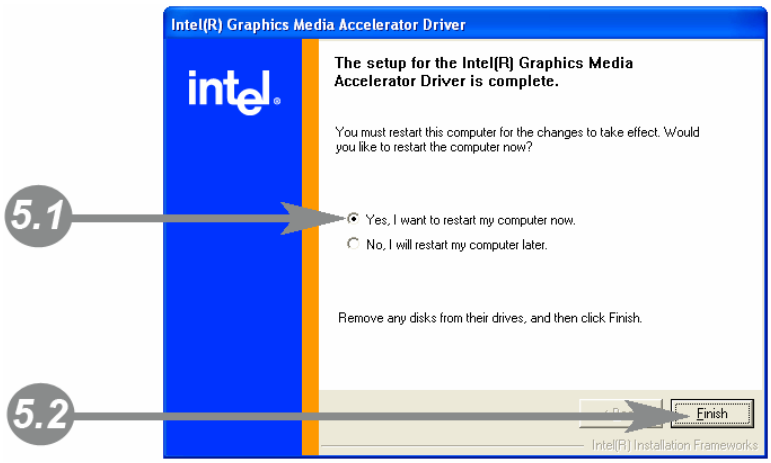
3.1. After files extracted, click **Next** on the welcome screen.

4. Read the License Agreement carefully and click **Yes**, and then the installation starts.


Intel(R) Graphics Media Accelerator Driver
License Agreement
Please read the following license agreement carefully. Press the Page Down key to view the rest of the agreement.
INTEL SOFTWARE LICENSE AGREEMENT (OEM / IHV / ISV Distribution & Single User)
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING.
Do not use or load this software and any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement. If you do not wish to so agree, do not install or use the Software.
Please Also Note:
* If you are an Original Equipment Manufacturer (OEM), Independent Hardware Vendor (IHV), or Independent Software Vendor (ISV), this complete LICENSE AGREEMENT applies;
You must accept all of the terms of the license agreement in order to continue the setup program. Do you accept the terms?
Yes
No
Intel(R) Installation Frameworks
4
Installing version 6.14.10.4497....

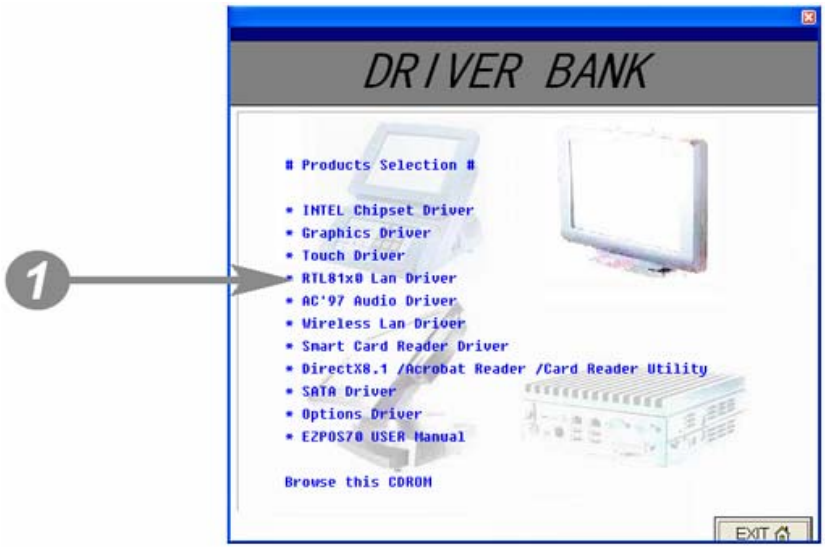
5.1. Select restart your computer right now or later.

5.2. Click **Finish**.


Intel(R) Graphics Media Accelerator Driver
The setup for the Intel(R) Graphics Media Accelerator Driver is complete.
You must restart this computer for the changes to take effect. Would you like to restart the computer now?
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish.
Finish
Intel(R) Installation Frameworks
5.1
5.2

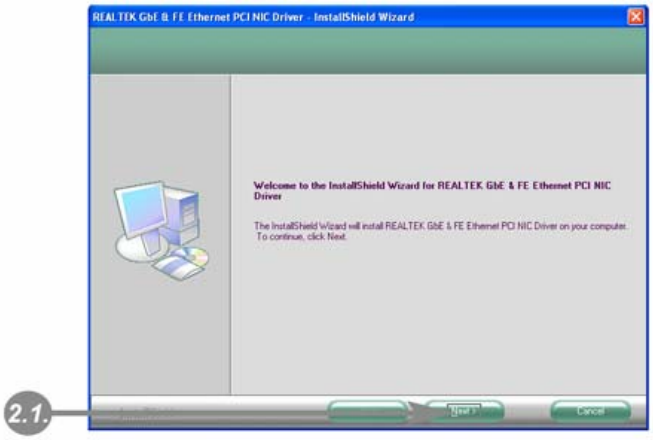
4.4. LAN Driver Installation

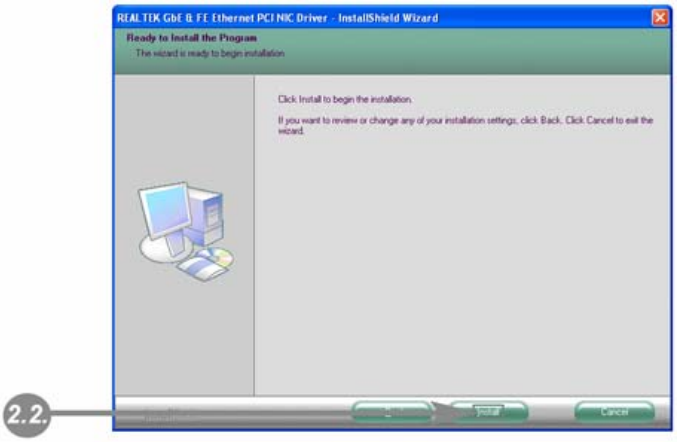
1. Click **RTL81x0 LAN Driver**.



1.1. On the welcome screen, click **Next**.

1.2. Click Install to begin the installation.

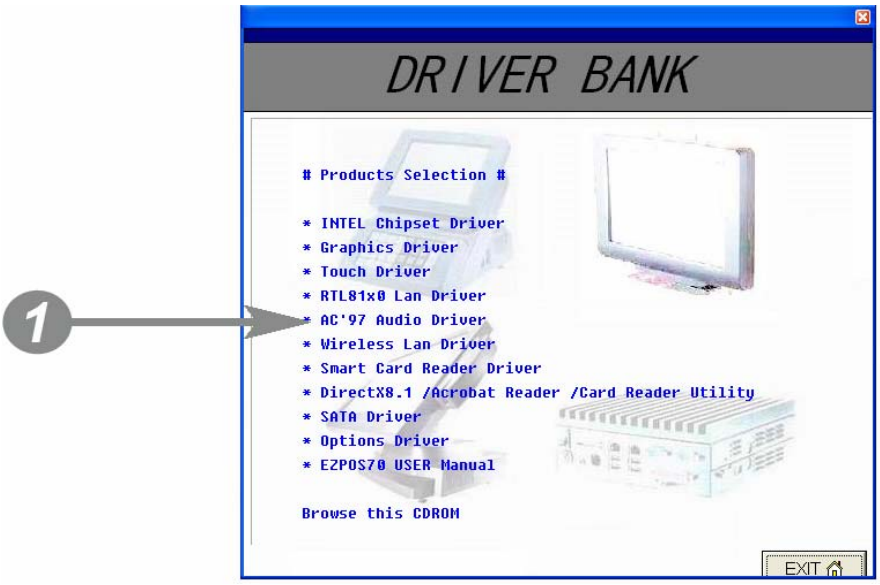

REALTEK GbE & FE Ethernet PCI NIC Driver - InstallShield Wizard
Welcome to the InstallShield Wizard for REALTEK GbE & FE Ethernet PCI NIC Driver
The InstallShield Wizard will install REALTEK GbE & FE Ethernet PCI NIC Driver on your computer. To continue, click Next.
2.1.


REALTEK GbE & FE Ethernet PCI NIC Driver - InstallShield Wizard
Ready to Install the Program
Click Install to begin the installation.
2.2.

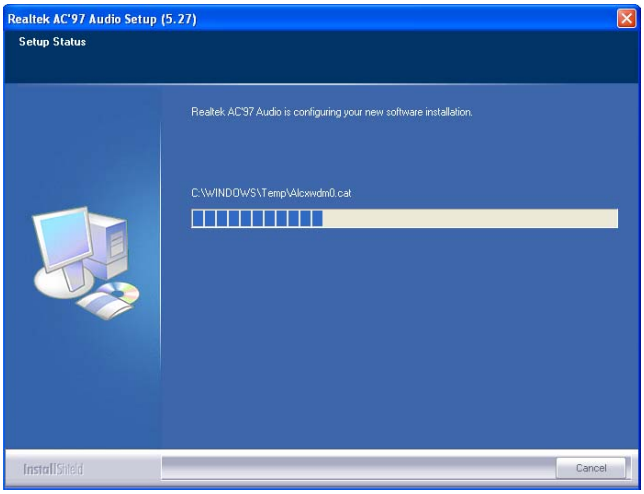
3. Click **Finish**.

4.5. Audio Driver Installation

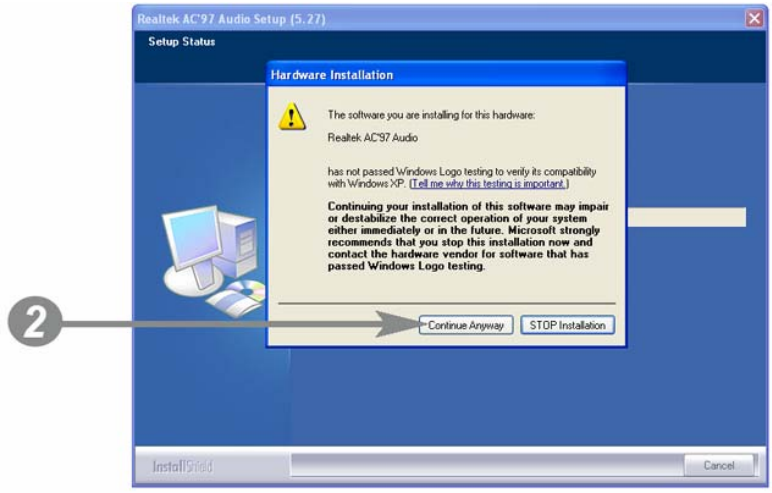
1. Click **AC'97 Audio Driver.**



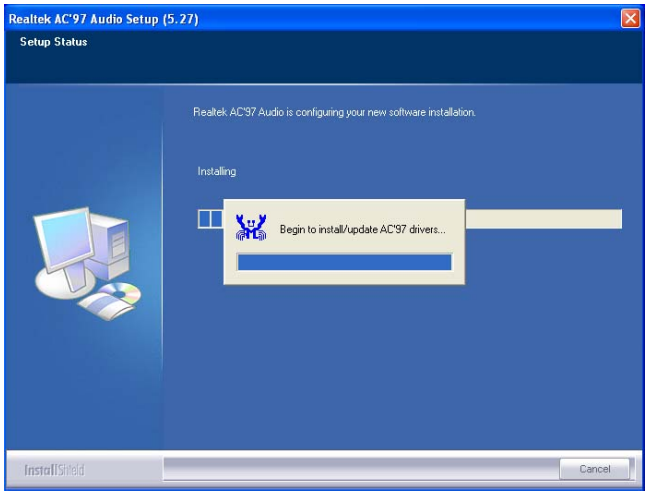
2. Configures new software installation.



3. Click **Configure Anyway**.

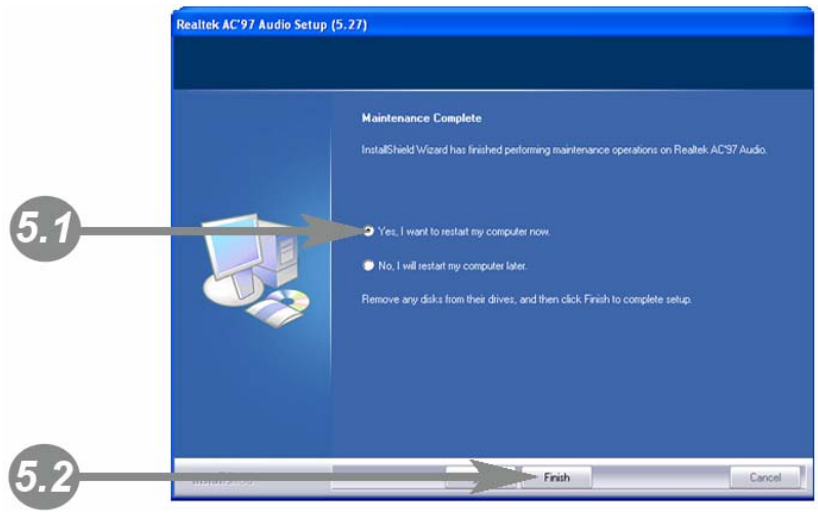

Realtek AC'97 Audio Setup (5.27)
Setup Status
Hardware Installation
The software you are installing for this hardware:
Realtek AC'97 Audio
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation
InstallShield
Cancel
2

4. AC’97 drivers begins to install.



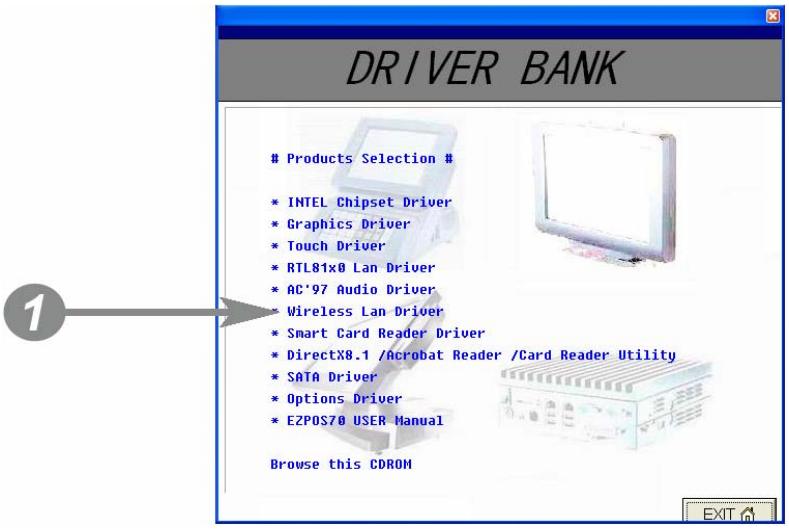
5.1. Select restart your computer right now or later.

5.2. Click **Finish**.

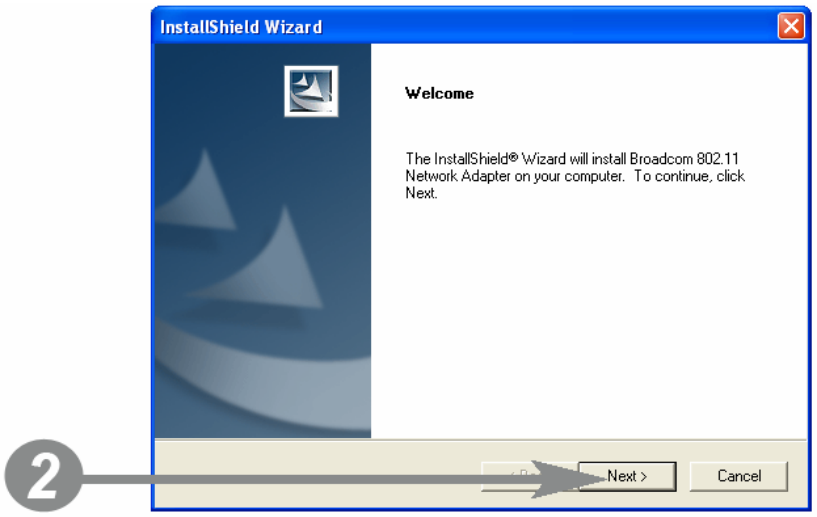

Realtek AC'97 Audio Setup (5.27)
Maintenance Complete
InstallShield Wizard has finished performing maintenance operations on Realtek AC'97 Audio.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
5.1
5.2
Finish
Cancel

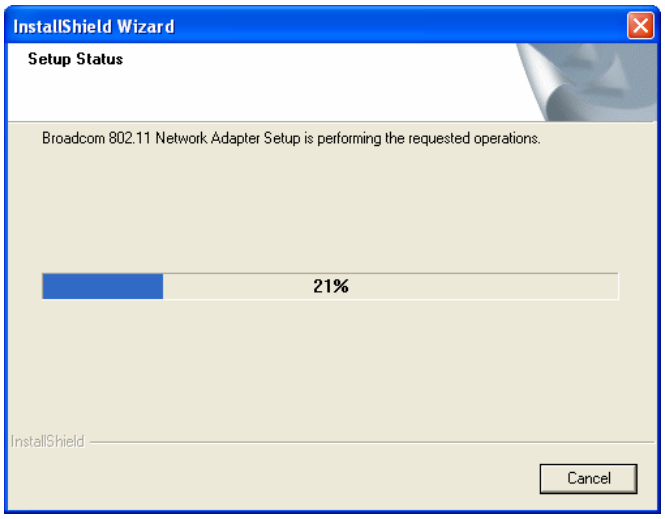
4.6. Wireless LAN Driver Installation

1. Click **AC’97 Audio Driver.**



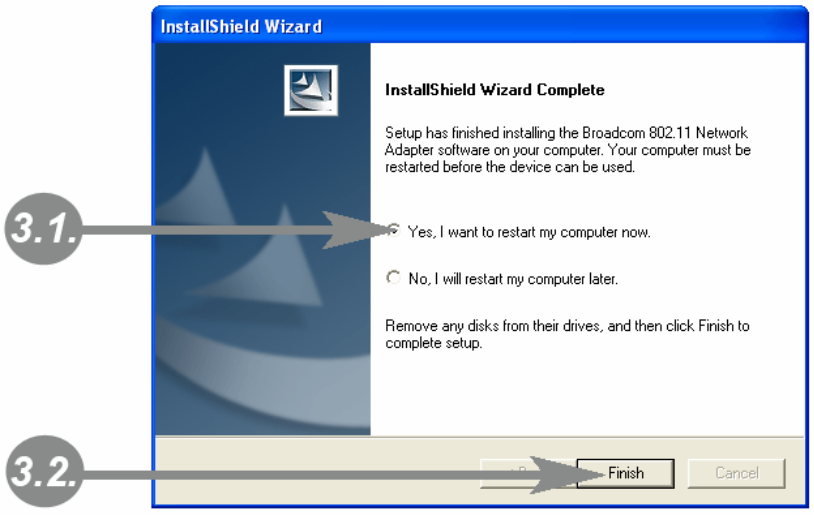
2. On the welcome screen, click **Next**, and then the installation begins.





3.1. Select restart your computer right now or later.

3.2. Click **Finish**.


InstallShield Wizard
InstallShield Wizard Complete
Setup has finished installing the Broadcom 802.11 Network Adapter software on your computer. Your computer must be restarted before the device can be used.
3.1.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
3.2.
Finish
Cancel

5.

Power Management

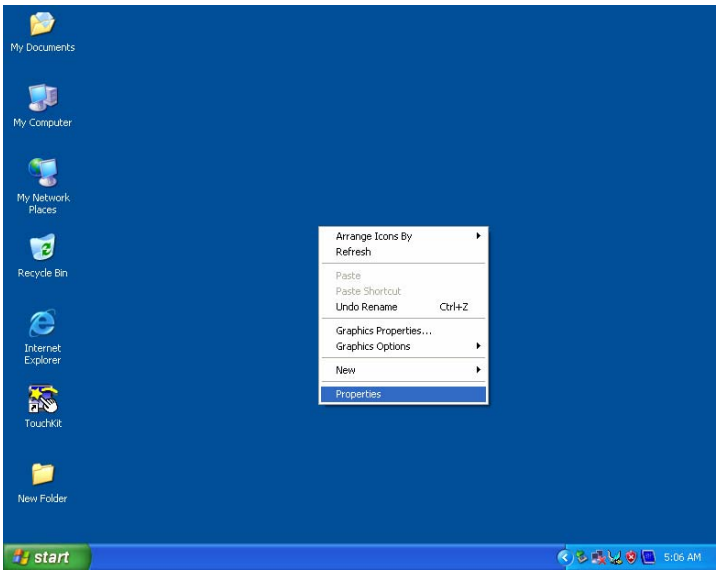
The backup battery equipped on SPPC 70 series is as “smart” as the battery for Notebook or handheld device; you can adjust any power management option that your unique hardware configuration supports.

5.1. Enter Power Option Properties Sheet

There are two alternatives to enter **Power Options Properties** property sheet.

Option 1:

1. Right-click on the Desktop and select **Properties**.



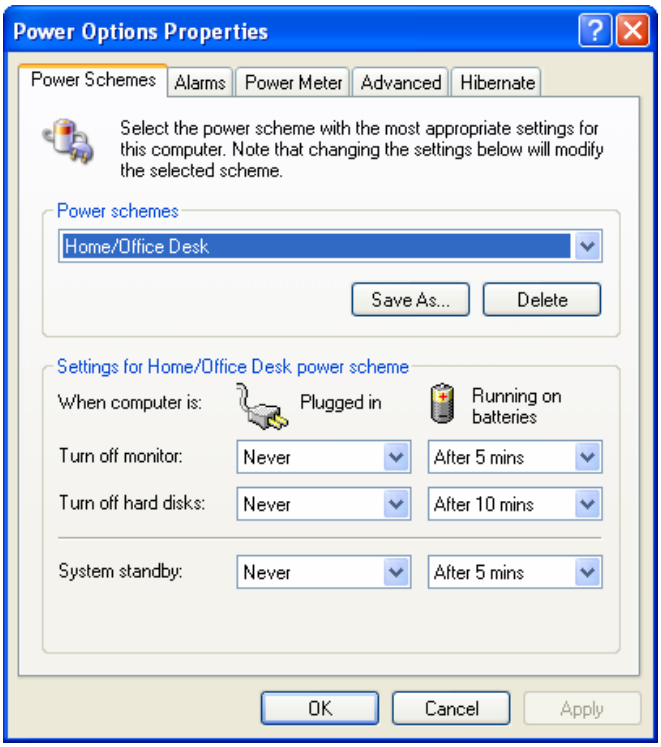
2. Click **Screen Saver** tab, and then click **Power** button.

Option 2:

1. Click **Start**, click **Settings**, click **Control Panel**, and then double-click **Power Options**.

5.2. How to Set Power Options

Power Schemes



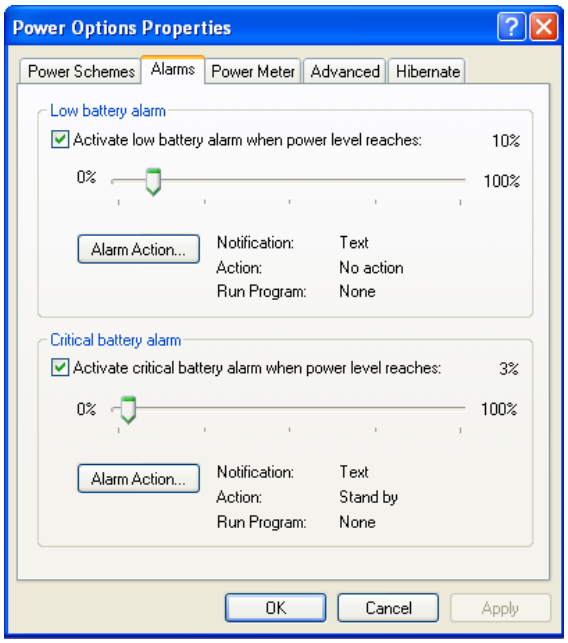
You can configure power settings under **Power Schemes** tab**.**

Under **Power schemes** area, click the drop-down list to choose a power scheme to apply settings that fit the way you use SPPC 70.

Under **Settings for Home/Office Desk Power scheme** area, set all parameters by clicking drop-down lists to put SPPC 70 on standby mode and turn off your monitor and hard disks automatically to save power upon your actual needs.

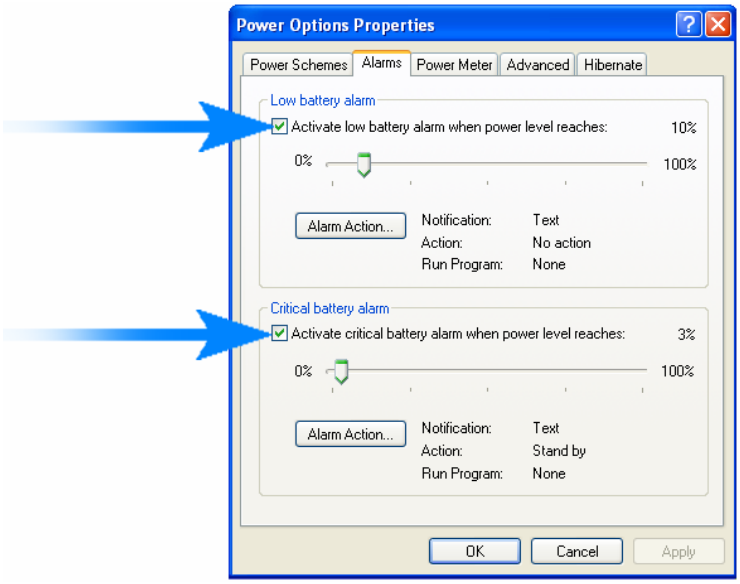
Alarms

You can set two kinds of low battery warning you'll receive when battery power gets low and what action will be taken for SPPC 70 under **Alarms** tab.



Low battery alarm and Critical battery alarm

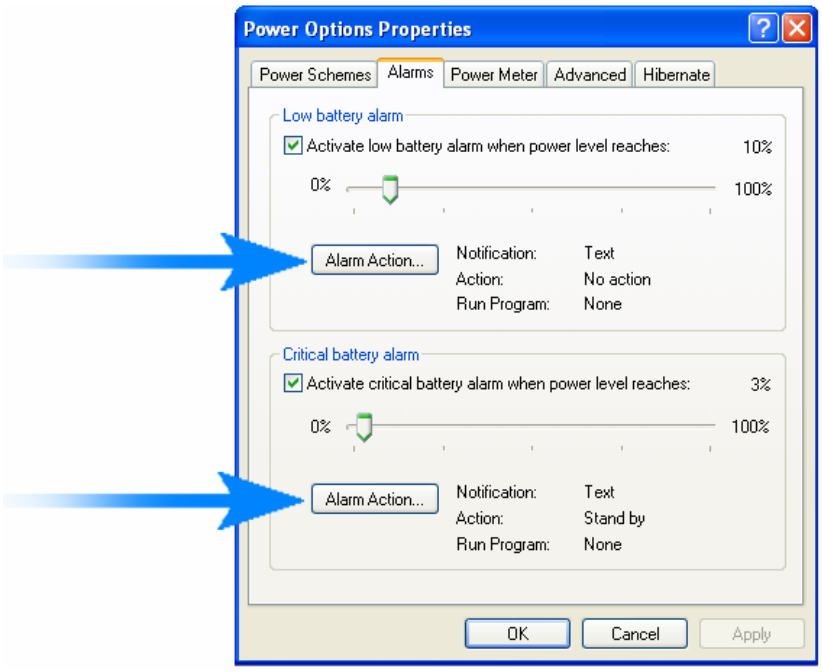
Check the box to enable **Low battery alarm** and **Critical battery alarm** function.



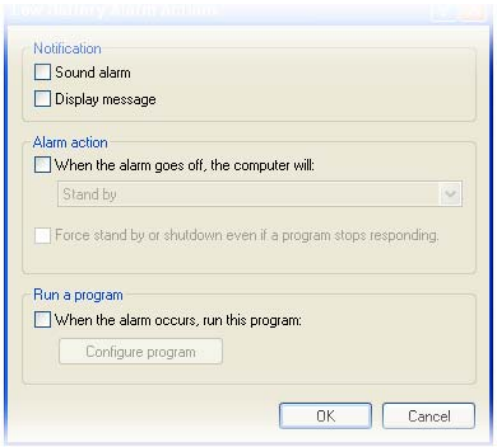
Specify how much power level to activate these two alarms by dragging the green-white slider.

Alarm Action

Click **Alarm Action** to enter alarm actions setting sheet.



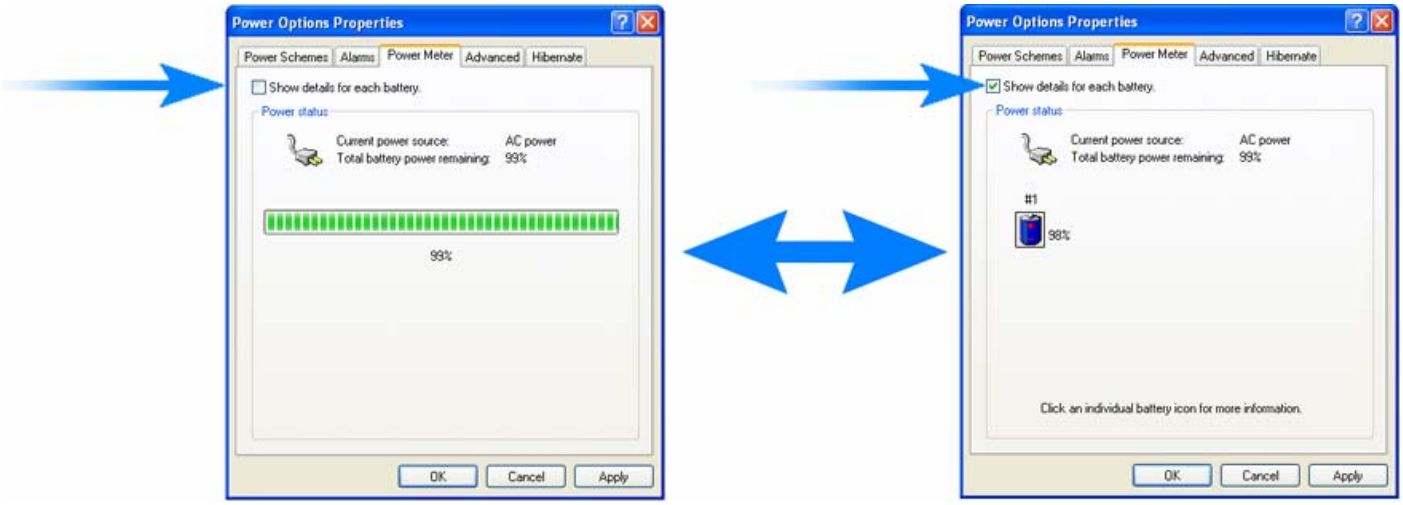
On alarm actions setting sheet, select the type of alarm notification, which action SPPC 70 will take and which program will launch when the alarm occurs.



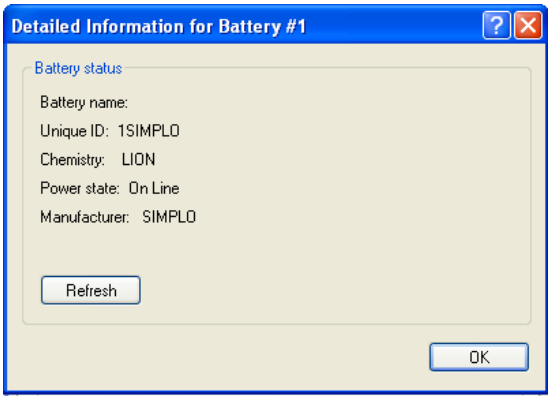
Power Meter

You can check power status under **Power Meter** tab.

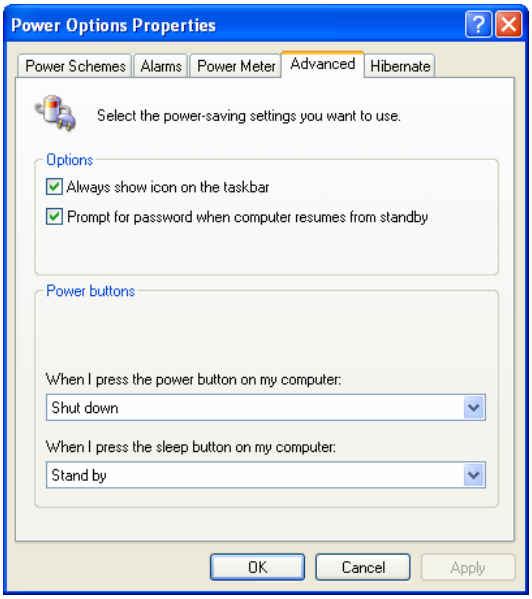
Check or uncheck the box to switch icon view and bar chart view.



Under the icon mode, click the battery icon to show the detailed information about the battery.



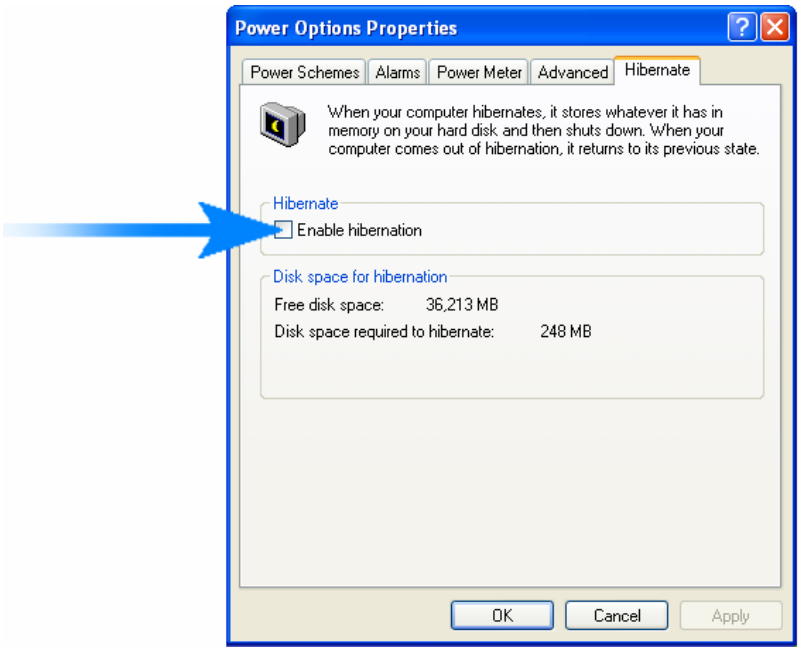
Advanced



You can specify power-saving settings by checking boxes in Options area and clicking drop-lists in Power button under **Advanced** tab.

Hibernate

Enable the hibernate function by checking **Enable hibernation** box.


Power Options Properties
Power Schemes
Alarms
Power Meter
Advanced
Hibernate
When your computer hibernates, it stores whatever it has in memory on your hard disk and then shuts down. When your computer comes out of hibernation, it returns to its previous state.
Hibernate
Enable hibernation
Disk space for hibernation
Free disk space: 36,213 MB
Disk space required to hibernate: 248 MB
OK
Cancel
Apply

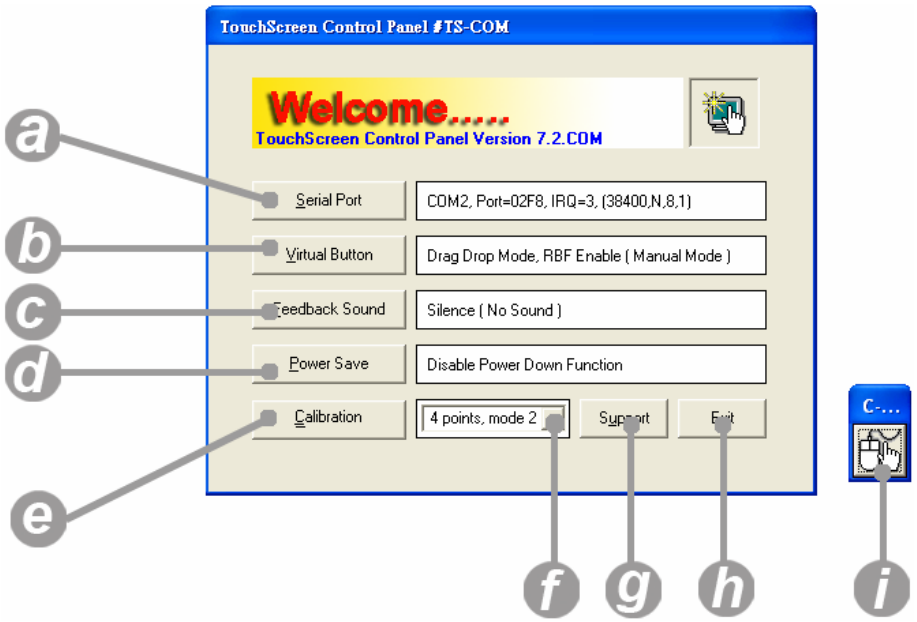
6.

TouchKit Utility Quick Guide

6.1. Launch Touchscreen V7.3.COM

1. Under Microsoft Windows XP, click "**start**" menu and select "**Programs**", under "**Touchscreen V7.3.COM**" menu, click "**Touchscreen Control Panel V7.3.COM**", the control panel of the program shows.

6.2. User interface

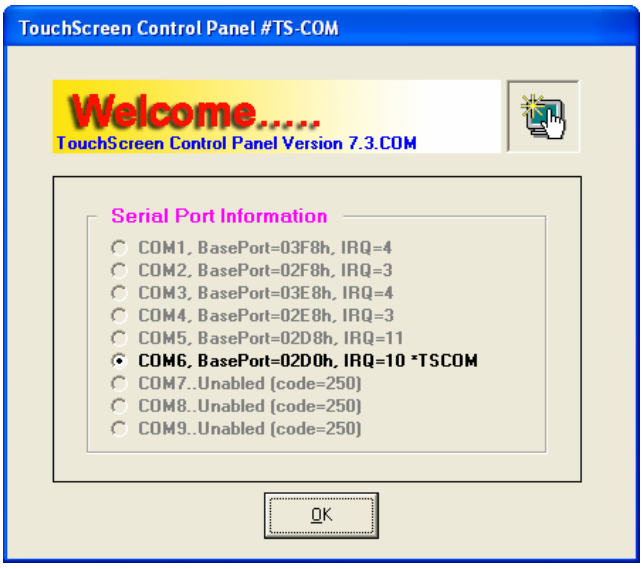


a	**Serial Port**	Display serial port information of the system.
b	**Virtual Button**	Open the virtual button setting dialogue box.
c	**Feedback Sound**	Open the feedback sound setting dialogue box.
d	**Power Save**	Open the power down timer adjustment dialogue box
e	**Calibration**	Switch to calibration screen.
f	**Calibration Mode Menu**	Select the calibration by clicking this drop-down list.
g	**Support**	Display technical support information.
h	**Exit**	Exit the program.
i	**Event Selector**	Enable right mouse button function. The default of this selector is with the left mouse button selected on. For details about event selector settings, please see "**How to Use Event Selector**" of Section 5.2.

6.3. Serial Port Information

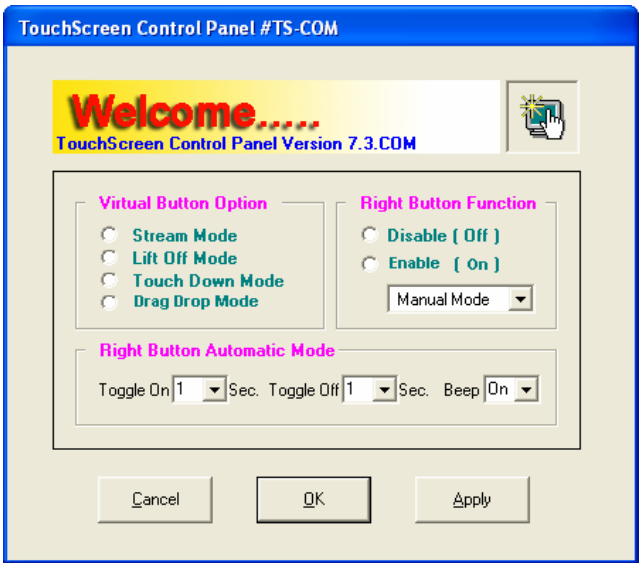
Click **Serial Port** button, the serial port information shows.

Click **OK** to back to the control panel.



6.4. Virtual Button Settings

Click **Virtual Button** button, the dialogue box shows:



The selected option will be in black.

Virtual Button Option

Under **Virtual Button Option** group box, there are four options:

- **Stream Mode**

Under this mode, all mouse button simulation will be disabled.

- **Lift off Mode**

Under **Lift off Mode**, tapping and holding on the screen equals pressing and holding on the left button of the mouse.

- **Touch Down Mode**

  Under **Touch Down Mode**, one single-tapping equals one left mouse clicking.

- **Drag Drop Mode**

  Drag Drop mode allows you to select an object on the screen by tapping, and then slide the selected object to a new location on the screen, the selected object will be dropped on the new location by releasing the touch.

The selected option will be in black.

Right Button Function

- **Disabled (Off)**

  Select this option, the event selector will be disabled and disappear.

- **Enable (On)**

  Select this option, the event selector will be enabled and show on the left-bottom corner of the screen.

- **Automatic Mode/Manual Mode Drop-down List**

  If the Drag Drop Mode under **Virtual Button Option** group box is select, the drop-down menu below the **Enable (On)** option will be enabled.

  Automatic Mode

  - Select this option, the Right Button Function will switch to automatic mode and the event selector will be disabled and disappear.

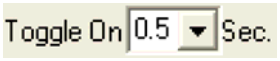
  Manual Mode

  - Select this option, the Right Button Function will switch to manual mode and the event selector will be enabled and show on the left-bottom corner of the screen.

  - Options under **Right Button Automatic Mode** will be enabled when **Manual Mode** is selected.

The selected option will be in black.

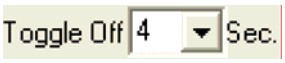
Right Button Automatic Mode



Toggle On time is the duration between the tapping on the screen and that the right mouse button is “virtually” pressed and held.

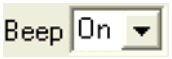
Release the tapping from screen after toggle-on, the pop-up menu shows.

The minimize value is 0.5 and maximum value is 5.



This option defines how long the right button function will be off.

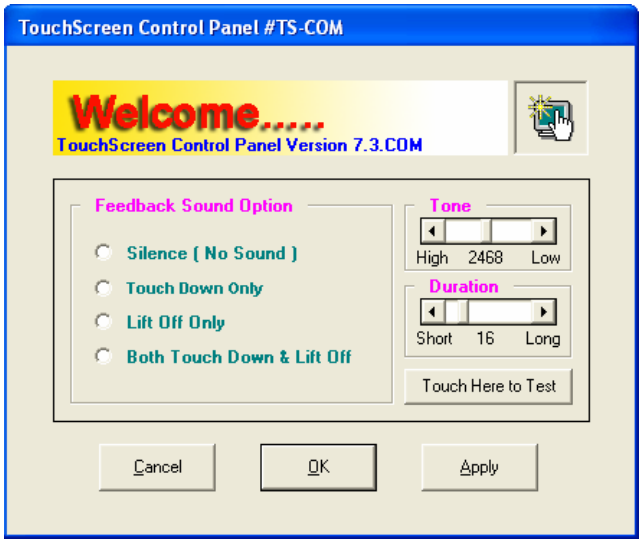
The minimize value is 0.5 and maximum value is 5.



Click the drop-down menu to select **On** or **Off** to enable or disable the beep sound effect for toggle-on and toggle off.

6.5. Feedback Sound

Click **Feedback Sound** button, the dialogue box shows:



Feedback Sound Option

Silence (No Sound)

No any sound effect.

Touch Down Only
When this option is selected, there will be one “beep” sound when tapping on the screen.

Lift Off Only
When this option is selected, there will be one “beep” sound when releasing from the screen.

Both Touch Down & Lift Off
When this option is selected, there will be one “beep” sound when tapping on the screen and releasing from the screen.

Tone
Drag the bar to adjust the frequency of the sound effect.
The minimize value is 200 and maximum value is 5000.

Duration
Drag the bar to adjust how long the “Beep” sound will be.
The minimize value is 10 and maximum value is 50.

The selected option will be in black.

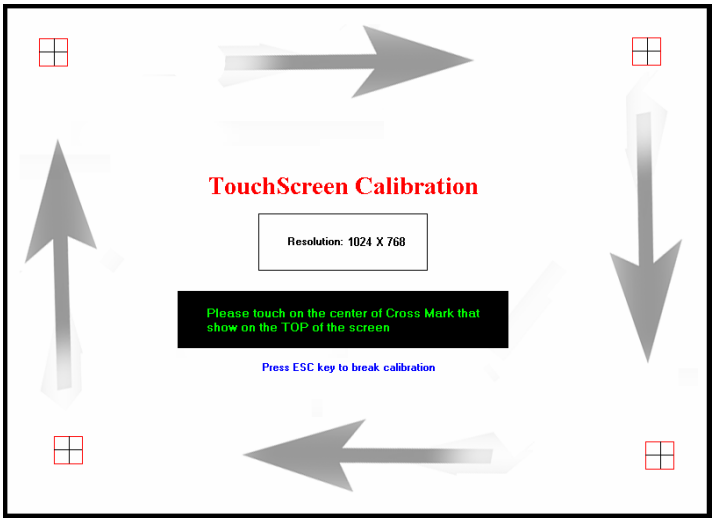
6.6. Screen Calibration
1. Click the drop menu next to the Calibration button to select calibration mode.

4 points, mode 1 – rectangular four-point calibration
4 points, mode 2 – rhombic four-point calibration

2. Click **Calibration** button to enter the calibration screen.

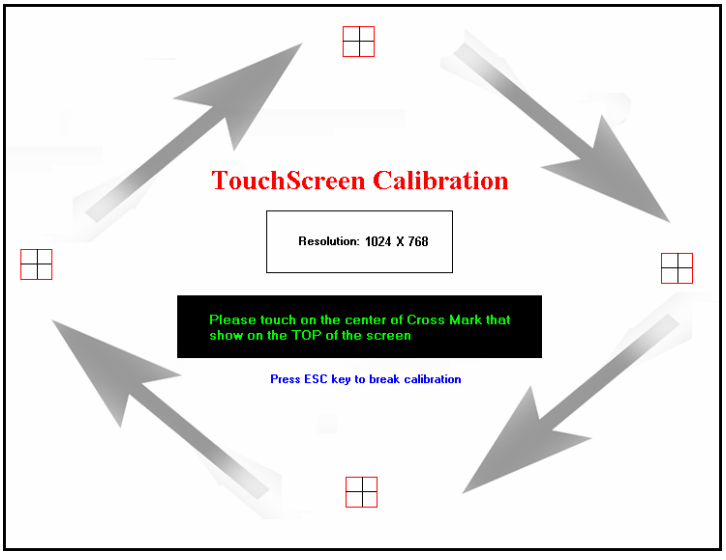
4 points, mode 1

a. The mark shows on the Left-up corner.
b. Follow the instruction in green to touch the center of Cross Mark.
c. When the instruction turns into yellow, releasing the tapping from the screen.
d. Follow the instruction in green to touch the center of Cross Mark.
e. Repeat Step 2 – Step4 to finish the calibration procedure.

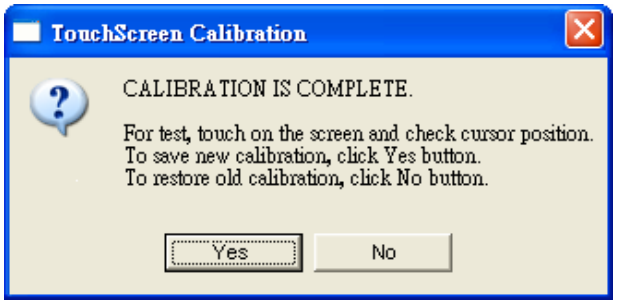

TouchScreen Calibration
Resolution: 1024 X 768
Please touch on the center of Cross Mark that show on the TOP of the screen
Press ESC key to break calibration

4 points, mode 2

a. The mark shows in the middle of the length of the screen.
b. Follow the instruction in green to touch the center of Cross Mark.
c. When the instruction turns into yellow, releasing the tapping from the screen.
d. Follow the instruction in green to touch the center of Cross Mark.
e. Repeat Step 2 – Step4 to finish the calibration procedure.


TouchScreen Calibration
Resolution: 1024 X 768
Please touch on the center of Cross Mark that show on the TOP of the screen
Press ESC key to break calibration

3. When the calibration procedure is completed, the message shows:


TouchScreen Calibration
CALIBRATION IS COMPLETE.
For test, touch on the screen and check cursor position.
To save new calibration, click Yes button.
To restore old calibration, click No button.
Yes
No

To save the new calibration, click **Yes**, to restore the old calibration, click **No**.

How to Use Event Selector

1. On the desktop of Windows, click icon.
2. icon change to .
3. Now the tapping is simulating right mouse button clicking.
4. After one tap on the screen, icon change to .
5. The tapping resumes to left mouse button clicking.

7.

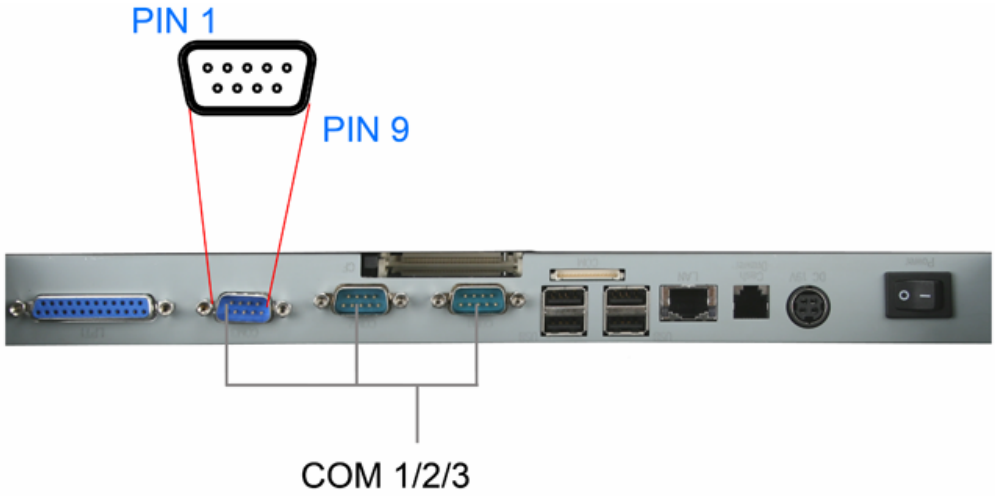
I/O Definition

Please refer the detailed technical information about all I/O ports as followings.

7.1. Power Connector

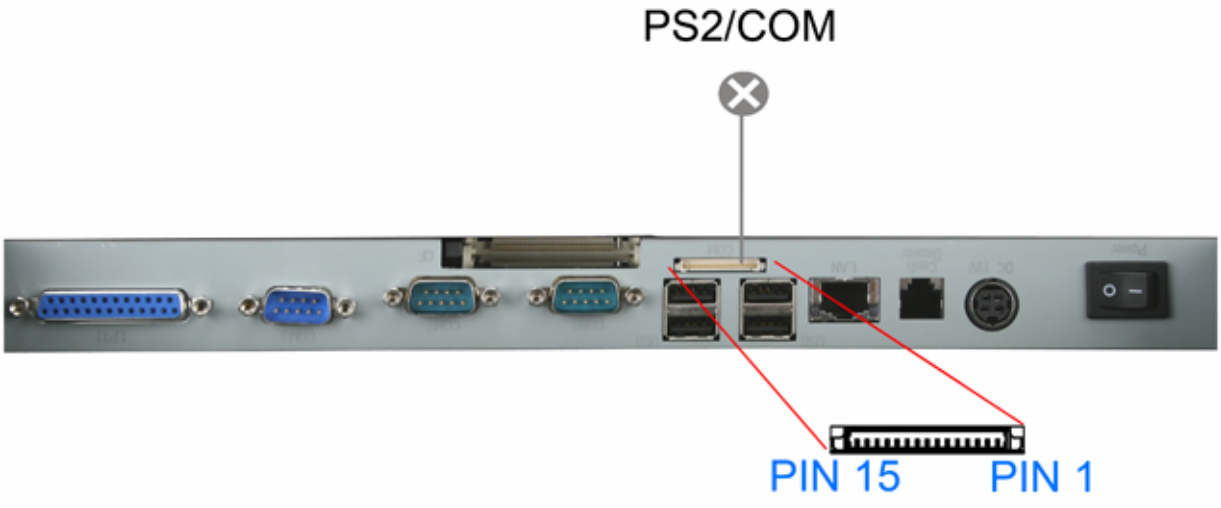
PIN	Description	PIN	Description
1	+19V	3	GROUND
2	+19V	4	GROUND

7.2. Serial Port



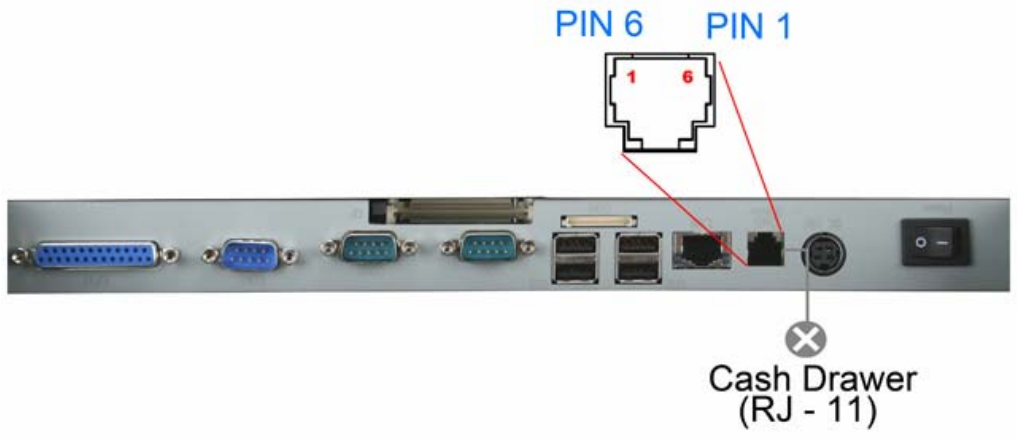
COM Port 1/2/3/4			
PIN	Description	PIN	Description
1	DCD	6	DSR
2	RXD	7	RTS
3	TXD	8	CTS
4	DTR	9	RI / 5V /12V
5	GND	10	NC

7.3. PS2/COM



PS2/COM					
PIN	Description	PIN	Description	PIN	Description
1	GND	6	PC_CLK)KEYBOARD)	11	CTS
2	+5V	7	KB_DAT	12	RTS
3	RXD	8	KB_CLK	13	DSR
4	TXD	9	RI / 5V /12V	14	DCD
5	PC_DAT (KEYBOARD)	10	DTR	15	KB_EN

7.4. Cash Drawer



Connector

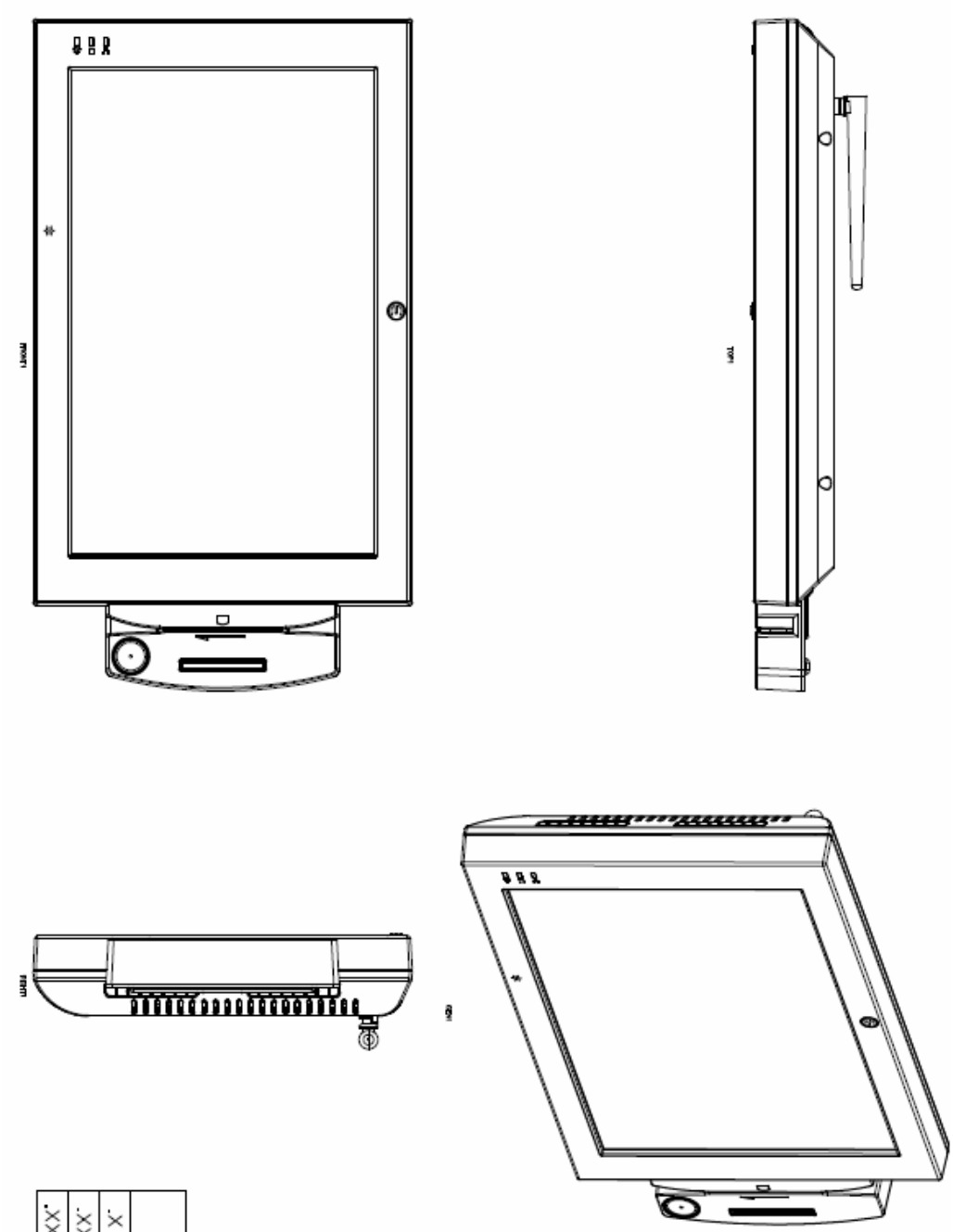
PIN	Description	PIN	Description
1	GND	4	12V
-+2	D_OUT	5	NC
3	D_IN	6	GND

Cash Drawer Control

Status	Address	Value
Open	280H	Bit 4 = 0
Close	280H	Bit 4 = 1
Read Status	281H	Bit 0 = 0/1

8.

Specification



TOLERANCES	
.X ± 0.2	X° ± 0.25
.XX ± 0.1	.X° ± 0.15
.XXX ± 0.05	.XX° ± 0.05

Main Board	
CPU	Intel® Ultra Low Voltage Celeron M 1GHz w/o L2 cache Intel® Celeron M 1.5GHz L2 cache 1M
Chipset	Intel 852GM + ICH4
System Memory	SO-DIMM DDR266/333, 128MB up to 1GB
Thermal Solution	Fan-less
OS	Microsoft Windows XP Professional, XPE, WEPOS, Windows CE, Linux
Storage Device	
HDD	1 x SATA , 2.5" HDD Drive Bay
Compact Flash	1 x Slot, Type II
I/O Ports	
Serial	5 x RS-232, 1 x RS-232/422/485 COM1: RS-232/422/485, DB-9, male, Pin9 with RI/5V/12V Selected by BIOS, COM2/3: RS-232, DB-9, male, Pin9 w/ RI/5V/12V Selectable by BIOS COM4: Internal Pin Header for MSR COM5: 15Pin Header or DB9 COM6: Internal for Touch Panel
Parallel	1 x DB25 ECP/EPP/SPP
USB	4 x USB 2.0
LAN	1 x RJ45, Gigabit Ethernet
PS2/COM	1 x internal for MSR, iButton
Cash Drawer	1 x RJ11 (12V)
Audio	AC'97 2.0 Compliant, 2W Speaker x 2 1 x Mic Build in
Expansion	1 x Mini PCI, optional wireless LAN module
Others	
Power Supply	External Adapter, 135W, 19VDC input
UPS Power Backup	Supports Smart Battery 4S1P backup function
Color	Black
Material	Die-Casting Aluminum
Compliance	FCC / CE / WEEE / RoHS
Weight	Approx. 6.5 Kg
Dimension	250(W) x 58(D) x 370(H) mm
Operation Temperature	5^{o} ~ 35^{o}C,
Storage Temperature	-20^{o} ~ 60^{o}C,
Storage Humidity	20 – 85% RH, non-condensing
Optional Accessories	
USB 802.11b WLAN	
1.3/2.0M pixels, USB type web camera	
Smart Battery 4S1P	
MSR T3 or T2 (PS2)	
iButton (PS2)	
Microphone	